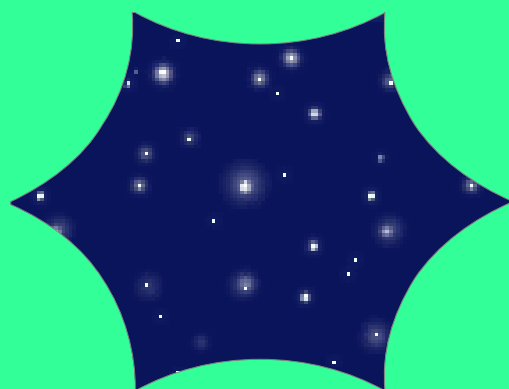


A.P. MARYUKHIN

LINGUISTICS  
EAST AND WEST



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## **Preface**

Any collaboration presupposes interaction in many branches of science. This book arose as an answer to contemporary linguistics which undergoes significant modifications. Its aspects shifted to cognitive researches connected with current scientific technologies. One speaks today about meta-worlds, meta-universum, and open cultural areas. Yet historical questions remain untouched and often forgotten. I tried to reconsider the place of linguistics among the sciences.

I collected information according to retrospective analysis. Much attention has been given to interaction between West and East linguistic issues.

*Astrakhan, 2021*

## § 1. Historical Overview

The etymology, the doctrine of the derivation and explanation of the origin and meaning of words, was already known to classical antiquity. However, it was not a special science, but served as philosophy or textual criticism. In “Kratylos”, Plato puts a question of whether the relationship between the word and its signification is based on natural necessity or on arbitrariness and agreement. Plato and Aristotle also pointed out that truth or falsehood is not fixed in the individual word, but in the context of the word. It should also be noted that in “Kratylos” one already finds the fundamentals of a descriptive theory of phonetics.

The teaching of the Stoa (Chrysippos) did not bring any significant progress in linguistics. The problem of the origin of language and the relationship between logical and grammatical categories was at the center of the controversial issues at that time. Linguistics entered the sphere of textual criticism, with the fortunate result that grammar finally emerged as an independent science. The syntax was eagerly cultivated by Apollonios Dyskolos, who also taught under Marcus Aurelius in Rome.

In the 2<sup>nd</sup> century BC, the dispute broke out between analogists and anomalists. Those who supported the famous Aristarchus, asserted complete correspondence between logical and grammatical categories, indicating the numerous cases where these concepts did not coincide. Even today our whole grammatical mode is under the influence of the artistic expressions created by the ancient Greeks.

The linguistics of antiquity as well as the Middle Ages was only a description of language, no history of language or the science of principles of the history of language. In particular, the explanation of words at that time never got beyond the point of view of amateurism. Derivatives like *lucus a non lucendo*, *verbum a verberando*, *pandere a pane dando*, *latro a latere*, *lapis quasi laedens pedem*, *fenestra quasi ferens nos extra*, *terra ab eo quod teritur*, etc. are more like a joke than science. Only syntax found some encouragement in scholasticism. The epoch of humanism did not bring any significant progress, too. People were still looking for a match between language and thought and wanted to build up a “general” or “philosophical” grammar instead of following to ask the psychological basis of the phenomena of linguistic life, because only the psychological and sociological consideration of language can unravel the language problems. The Indians paid more attention to linguistics. They dissected their own languages with admirable confidence and a keen sense of language, but comparative language studies remained alien to them, too.

Modern linguistics emerged in Europe, but not before the beginning of the 19<sup>th</sup> century, which could rightly be called the age of linguistic history and linguistic comparison, in the true sense of the word. The impetus for this came from studying ancient Indian or Sanskrit, which showed a surprising correspondence with various European languages that were so proud of their originality. First the Italian Filippo Sassetti, who stayed in Goa from 1581 till 1588, pointed out the identity of Indian and Italian numerals. Then William Jones, who founded the Royal Asiatic Society in

Calcutta in 1784, pioneered the development of Sanskrit. He drew the attention of educated Europe to Sanskrit and its connection with the main European languages. Friedrich Schlegel, who had learned Sanskrit in Paris in 1803, opened up wide perspectives into the historical development of languages with his book “About the Language and Wisdom of the Indians” (Heidelberg 1808) and first set up the program of “comparative grammar”. It was discovered that Greek, Latin, Germanic, etc. belong to a large family with Sanskrit, that they form links in a large language chain that connects the Ganges with the Atlantic Ocean.

In this way one gained a deeper insight not only into the prehistoric times of these languages but also into the relationship between the historical forms of languages. This language group was later called the Indo-European. The term “Indo-European” is perhaps preferable because it indicates the whole family of languages through the two outermost links of the chain that connects northeast India with Iceland.

The most brilliant name in the first period of the modern linguistics was that of Franz Bopp (1791-1867). Bopp's main goal was to explain the origin of flexion through the agglutination theory. Any word in IE languages can be traced back to monosyllabic roots. A distinction is made between verbal and pronominal roots. The verbal roots form verbs and nouns, the pronominal roots form pronouns, prepositions, conjunctions and particles. The case endings as well as the inflectional endings were originally mostly pronouns.

Bopp's contribution to the actual comparison of languages lies in the fact that he first scientifically proved the original unity of the IE languages by researching “their physical and mechanical laws”. By “physical laws” he understood what we now call “phonetic laws” and by “mechanical laws” the relationship between vowels and syllables. He applied the law of gravity to the forms of language. The heavy root form, he thought, is followed by the weak personal ending and vice versa, e.g. skr. *émi* “I am going”, but *imás* “we are going”. Now we attribute the strong or weak form of the root to the effect of the accent.

It should be emphasized that Mr Bopp did not set himself the task of researching the historical development of individual languages, as it is done today in the context of comparative linguistics. First of all, the connection between the IE languages had to be proven from their inflection system, and for this, according to Bopp's view, Sanskrit provided the most reliable basis. According to Mr Bopp, all transformations signify a period of distortion and decay.

The closest to Mr Bopp is Jacob Grimm (1785-1863). Mr Grimm is the creator of historical linguistic consideration. But while Mr Bopp was primarily concerned with the comparison and explanation of forms, Mr Grimm devoted his special attention to the sounds of speech and, through his laws of sound displacement, rendered an invaluable service to the comparison of languages. What Mr Rask had already observed, he first established as an irrefutable fact that the transition from one sound to another is regulated by certain laws and that, in particular, an undeniable, strictly historical relationship prevails between the sounds of the Germanic languages

on the one hand and the classical languages on the other.

Historical linguistics begins with Grimm's German grammar using a generally comparative method. The material of this basic work is limited to the Germanic languages, but the path taken here remained exemplary for the investigation of the other language groups of the IE tribe. Diez's "Grammar of Romance Languages", Miklosich's "Comparative Grammar of Slavic Languages" and Zeuss' ingenious "Grammatica Celtica" were later based on the model of Grimm's grammar.

In Germanic languages, as far as we know them historically, Mr Grimm differentiates between three periods, e.g. Old, Middle and Modern High German. If we now give an account to the origin and value of a certain living form of a language, we must first trace it back as far as possible in its own domain. Only then does the comparative study follow. The more languages are included in this comparison, the more precise the reconstruction will be and the better one will recognize the special laws of the IE languages. It can be seen that both directions of linguistic investigation, historical and comparative, in no way contradict each other.

Like Mr Bopp, Mr Grimm was under the influence of Wilh. v. Humboldt that language is not an artifact, but an expression of human nature. The conclusion and at the same time the climax of this period is the scientific effectiveness of Mr Schleicher and Mr Curtius. August Schleicher (1821-1868) earned lasting fame through his "Compendium of Comparative Studies of Grammar". He was mainly a Slavist and primarily through his Lithuanian studies brought new and rich material to science. By studying philosophy he came to divide languages into three main groups. According to him, language is completely absorbed in meaning and relationship. The meaning lies in the root, the relationship in the additions or affixes. Now either the meaning alone can be designated, and this happens in the so-called isolating languages or the relational syllables are added to the root, as in the agglutinating languages; or the root and the affix merge into a whole, as we observe in the inflected languages. In prehistoric times, language developed from isolation to inflection.

In addition, one finds by Mr Schleicher the idea that language lives like a natural organism, grows and develops, and that the method of natural science must also be transferred to linguistics. If, according to Mr Schleicher, one subtracts everything that belongs to the development of the individual languages from the various matching forms, then the original form remains. Related forms are e.g. Ved. *ájras*, Lat. *ager*, Got. *akrs* "field". Now we know that in Got. *k* developed from *g* and that an *a* was lost before *s*; thus through the Gothic one arrives at the original form *\*agras*. Mr Schleicher considered the Greek *o* to be the representative of an original *a*, so that the original form must again be *\*agras*. If one continues in this way, one finally arrives at an absolute, IE archetype *\*agras*. In the same way, one reconstructs the Genit. *\*agrasja*, the Acc. *\*agram* etc. The totality of these and other forms obtained in this way is the original language.

How did this original language look like? According to Mr Schleicher, it was necessarily a perfectly ideal language; because it was at the end of the pure development and after it the time of decay begins. Mr Schleicher also considered it



free from any mutual influence of sound, a language without sound laws, in which the word in all its parts was still completely intact. However, as we believe today, most of the phonetic changes that we perceive in the daughter languages have probably already been shown in the IE original language. Nowadays, the developed basic forms are no longer viewed as real structures, but only as formulas that summarize the changing state of our knowledge.

In 1877 Mr Verner showed that the IE *tenues* were indeed initially shifted to voiceless spirants according to Grimm's law in Germanic, but that these were then voiced or softened under certain conditions in the primitive Germanic era, e.g. Got. *brōþar*, Lat. *frater*, but Got. *fadar*, Lat. *pater*. If one compares the Germanic forms with the corresponding formations of the oldest Indian, the Vedic, e.g. *brōþar* with *bhratar*, *fadar* with *pitár-*, it turns out that the softening of the voiceless spirants in Germanic took place wherever the word accent did not immediately precede in ancient Indian. This proved the unity of the Vedic and the ancient Germanic accent and their common origin from the IE original language. It continued to turn out that especially in consonantism for the Gothic, a great deal of equilibrium must be assumed; and through this the phenomena of analogy regained importance.

Mr Osthoff and Mr Brugmann worked in the same direction. Mr Osthoff discovered the syllable liquids, Mr Brugmann the syllable nasals of the original language. In certain cases the equivalence of Skr. *a*, Greek *a*, Lat. *en*, Got. *un* and of Skr. *r*, Greek *pa*, *ap*, Lat. *or*, Got. *aur* (Germ. *\*ur*) was proven. So one was dealing with a phenomenon that reached up to the IE era; the IE sound system must have possessed sonanthic nasals and liquids: *m*, *n*, *l*, *r*.

The fundamentally new methods showed that the palatals appeared before *a* if this *a* corresponded to an *e* in the European languages. In this way, on the one hand, the riddle of the Aryan palatal formation was solved: it was based on the palatalizing of the following sound on the preceding guttural. But on the other hand it now followed that this *a* itself must have arisen from a palatal sound, namely *ey*. The priority of European vocalism was derived logically from this and it was established that the reconstruction of IE vowelism had to be based on the European-Greek sound system. So it was assumed that the basic language possessed *a*, *e*, *i*, *o*, *u*.

Finally, the principle of so-called "invariability" must be discussed. Mr Bopp had given the sound changes a lot of leeway; Mr Pott, Mr Schleicher and Mr Curtius had restricted this freedom. Nevertheless, the latter also spoke a lot about "sporadic sound changes". But linguists came more and more away from this traditional view, until finally Mr Leskien, then Mr Osthoff and Mr Brugmann, gave a sharp formulation of the "law of sound without exception" and of the effect of analogy. Much was also achieved in the theoretical field during this period. If Mr Steinthal had pointed out the value of "ethnic psychology" and general linguistics, it was left to the beforementioned Mr Paul to apply this principle to IE linguistics. The closest to him was Mr Whitney, who viewed language neither as an art nor as a natural product, but as a human institution and consequently valued language as a "historical or moral science". It is safe to say that these and similar fundamental conceptions of the nature

of language and linguistics initiated the psychological direction of the following period. The value of phonetic physiology for the study of linguistics was first recognized by Mr Raumer.

Psychological and social language research form a counterbalance compared to the sometimes rigid dogmatism of the young grammarians. The school of neolinguists, who work primarily in the field of Romance dialects, opposes the endeavors of the latter, however, even more decisively. Neolinguists do not regard the many external influences that interfere with the normal functioning of the sound laws, which young grammarians often only refer to as a last resort.

The psychological consideration of language on the one hand, and the social and cultural-historical on the other hand, also brought about a complete reversal in the field of the theory of meaning or semantics. All these currents lead us back to general linguistics of the ancients, but now understood in the sense of a science of the general laws which govern the historical development of languages.

## § 2. Methods of IE Linguistics

IE linguistics sets itself the goal of researching the laws that govern their phonology, inflection and word formation by comparing the corresponding forms in the IE languages, to determine their vocabulary and to explain their way of thinking. It is the methodical study of the correspondences within the IE language group with regard to their origin.

In the early days of comparative linguistics, Hebrew, Arabic, and other languages of the Semitic group were often included in the comparison as genetically related. Later attention was also paid to the Malay-Polynesian group, but it was only for purely practical reasons. For this purpose, the linguistics takes the traditional forms to a precise historical-critical investigation, makes endeavors to find the oldest form in every language or in as many related languages as possible, penetrates inductively into the prehistoric period of the IE languages. The history of a language is, for the most part, the history of its words and of its forms. It follows from this that the historical word derivation or etymology is the basis and foundation of every linguistic investigation. The historical and the comparative method are mutually dependent and complement. Linguistic research is based on the concept of development and shows the way to the IE original language.

Analogous forms and series of developments in related languages and also the reconstructed forms and laws of the original language will benefit historical research in explaining various linguistic phenomena. If one wants to find correspondence of two or more forms from related languages, he/she must, for example, establish the relationship between the forms from Latin *tres*, Gothic *Preis* "three" through advanced reconstruction of forms in Lat. *\*treies*, Germ. *\*Priiis* being derived from *\*treies*. It follows that one has to go back to the oldest attainable language form in the individual language groups by relying as much as possible on the own material of

these special groups.

When we speak of “languages” here, we mean IE language group. However, in order to obtain more abundant, more reliable results to further general history of language, the Indo-Europeanist must extend his comparisons to other language groups as well. Because the ultimate goal of any language course is to clarify how the human spirit reveals itself in the essence of language, in its transformations in the course of time.

### **§ 3. Language Relationships East and West**

Among the IE languages we find those that are more closely related to one another than the rest. Sanskrit is certainly related to Iranian, and Old Slavic to Latvian. Mr Bopp said that the Balto-Slavic group had remained united with the Indo-Iranian group for a longer period of time; Mr Zeuss and others assumed that the Balto-Slavic was closer to the Germanic group. Mr Grassmann drew attention to peculiarities that Greek and Sanskrit have much in common, while Mr Schleicher discovered a compelling correspondence between Celtic and Italian. The older hypothesis of a Greco-Italic unity was defended by Mr Curtius, Mr Fick et al. According to this view, the Greeks and Italians originally lived together. After their separation, however, the Dorians invaded Greece via the Hellespont and the Ionians via the Aegean islands. The Italians made their way to the Po Valley, probably over the Hellespont and the Danube Valley. Today this so-called Graeco-Italic hypothesis has very few supporters. In our opinion, however, there is a close cultural relationship between the two languages. Mr Fick and Mr Curtius finally contrasted the languages of Europe with the Asian as a unified group and divided them into a northern half with Baltic and Germanic, and a southern half with Greek and Italo-Celtic.

Schleicher's family tree theory is generally rejected today. According to this, the original language splits first into a northern and southern IE group. In any case, the original unity of the Indo-Iranian and the Balto-Slavic group is irrefutable. There is also a high probability of the Italo-Celtic unity, especially because of the *ing* gene, the *-o*-stems and the *r*-element for the formation of the Passive Voice. These phenomena are regarded as new formations and rightly considered to be the most weighty arguments in support of any unified theory. The strange correspondence in phonetics, accentuation, vocabulary, etc. in the other language groups explains the wave theory of Mr Joh. Schmidt very well. According to it, the closer points of contact between two languages or language groups are not necessarily based on common origins.

The IE languages are thus linked to one another by a sum of correspondences and these points of contact become more numerous. So Greek, Italian and Celtic belong to one historical group. We can imagine the entirety of the IE languages as a huge, self-contained chain, with a number of links without a beginning or an end. This transition theory is called “wave theory” because the various changes within the area

of a language center propagate as ring-shaped wave movements and intersect one another.

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Afrasian languages embrace six branches: 1) Semitic; 2) Berbero-Libyan (or Libyan-Guanche); 3) Cushitic; 4) Omotic; 5) Egyptian; 6) Chadic. The degree of kinship among the branches, however, is more remote than among the branches of the IE family, e.g. between Indo-Iranian, Slavonic and Germanic. The Afrasian languages may be viewed either as a “superfamily” or as a “phylum”. This is due to the much earlier date of the beginning of the Afrasian protolanguage, as compared with the PIE, and due to differences in the time which has passed since the individual branches or families broke away from Proto-Afrasian. But the families constituting the Afrasian “superfamily” or “phylum” cannot be studied, from the point of view of comparative linguistics, in isolation. There are Cushitic languages, such as Bedawye, which show specific similarities to Berber; there are Chadic languages which, possibly, may have connections with Berber, Omotic and Egyptian, etc. Moreover, all the Cushitic languages share many common lexical items that result not from genetic kinship but from an extremely long coexistence on contiguous territories.

Comparing individual branches in a family (or individual families in a superfamily, or superfamilies in a phylum) it is possible to determine the relative chronology of the emergence of linguistic phenomena in each or any of these groups by establishing whether such phenomena are characteristic only of a single branch (family), or can be evidenced in several.

Today, the most urgent task of Afrasian linguistics is to establish regular correspondences. The natural way would be to establish them, first, between languages of various obviously related groups, and then, between the reconstructed protolanguages of such groups. The latter could be assigned to an earlier, say, the Middle stage. Next we should reconstruct the individual protolanguages of each group separately, and, finally, the protolanguage of the whole family. First attempts in this direction have brought some very encouraging results.

The earliest Afrasian languages known to us – the Semitic, Akkadian, Eblaite, and Egyptian – possessed systems of a mixed logo- and syllabographic type. The basis of such systems was constituted by “logograms”, or ideograms, i.e., pictorial or symbolic mnemonical signs that corresponded to the word reflected by the picture or symbol; at the same time, every such sign could represent all other words that were somehow mentally associated with the basic notion. The limit of the range of associated words that could be represented by such a sign was determined by the points of contact with another associative range that was connected with a different sign. Those associations could be functional by contiguity, by similarity, and phonetical, i.e., homonymous words could be, in principle, represented by the same sign.

The possibility of associations by homonymity made it also possible to use signs for rebus-like writing, particularly, to represent morphemes, syntactic words,

foreign proper names, etc. Because of this every word-sign (logogram or ideogram) could acquire additional, phonetic values. Such signs are called “syllabic” although this is not entirely correct, since they may denote a single vowel, half a syllable, or two syllables. At the same time, because one logographic sign could represent several words, the same sign used syllabically could also become “polyphonic”, i.e., it could denote several entirely different sound-sequences, originally corresponding to different words connected by mental association. Doubtful cases could be clarified by the use of determinatives: the Egyptian writing system uses them with (almost) every written word, and this circumstance often permits the egyptologists to obtain a more precise meaning of the word. E.g., if it can be inferred from the context that a given word denotes “a vessel”, the pictorial determinative sketches the actual form of the vessel, which, in turn, would make clear the function of the vessel, and so forth. In the Sumero-Akkadian writing system the determinatives are used optionally and point to the general category to which a given notion belongs: professions, gods, countries, birds, fishes, wooden objects, objects made of metal, leather, stone, etc.

The logo-syllabographic writing systems had never made any attempt at an adequate representation of the phonological aspects of speech. For instance, in the Akkadian cuneiform script voicelessness, voicedness or the emphatic character of a consonant were never distinguished either in the “Inlaut” or the “Auslaut”. And in other cases syllabic signs did not always make it possible to distinguish different phonemes with the same locus of articulation. Thus, in Old Akkadian no distinction at all was made between voiced, voiceless and emphatic sounds; all the affricates were represented by a single series of syllabograms, etc. In time, more accurate methods of representing phonological and phonetical differences were gradually introduced, but the stage of a full and adequate reflection by writing of the entire phonological system was never reached, there were special signs for [ba] and [pa] but a single sign represented both [bu] and [pu]. The pronunciation of Akkadian words is usually established with the help of etymology, i.e. comparing the pronunciation of related words in other Semitic languages, or comparing the use of different signs in the inflexion of the same word. In Egyptian, neither the logographic nor the syllabographic signs could distinguish vowels, and in this way the sign [mn] could be read as *man*, *min*, *mun*, *mana*, and so on.

#### **§ 4. Languages of Ancient Forward Asia**

The languages of ancient Asia Minor are of interest not only as the languages of the first civilizations of the world – those civilizations that laid the foundation for the entire social and cultural development of mankind – but also because the written monuments of these ancient civilization has preserved linguistic facts for us through the whole millennium, starting from the deepest antiquity, which makes it possible to study the processes of language development within a long time. The study of this

material will allow in the future to understand in more detail the emergence of typological proximity of heterogeneous, but territorially close languages.

Indeed, in spite of the fact that the languages of ancient Western Asia belong to different linguistic families or are isolated languages, there are, as we will see, some features that bring them together.

As it is known from the history of linguistics, until now it has been proposed several principles of language classification. So, it is possible to classify languages typologically according to the morphological principle, that is, from the point of view of the general nature of the technical means used to express grammatical relations, either by placing in a certain order unchanging roots or stems, or by adding successive unchanging indicators for individual grammatical meanings (agglutinative structure), or by using complex indicators for the whole groups of grammatical meanings (inflectional structure), etc. However, it has been clear from the very beginning that this classification is purely formal and has no genetic meaning, since the certain grammatical categories in the language are essential, and the technical means for expressing them may develop differently, depending on the specific history of a the given language family. It cannot be assumed that agglutinative languages are typologically older than inflectional languages, isolating ones are older than agglutinative ones, etc. Moreover, the isolating structure can develop from the inflectional one and agglutinative – from the isolating one. In addition, these types never exist in their pure form, and, for example, agglutination always coexists with elements of inflection and vice versa.

During the period of dominance in Soviet science of the so-called “new doctrine of language”, another system of typological classification of languages was put forward – a stadial one. It proceeded not from how grammatical categories are expressed in the language, but from what kind of grammatical categories exist in it. Later an attempt was made to consider the grammatical categories present in the language, primarily syntactic ones, as a reflection of the degree of development of logical categories of thinking. In this regard, a phased sequence of changes in the types of syntactic categories existing in the language was assumed in accordance with the development of thinking. The most common was the allocation of three main stages – *pre-verbal*, without the specific design of the predicate; *ergative*, with a distinction between action verbs and state verbs and the reflection of the character in the indirect case; and *nominative*, which features most European languages.

But this classification also turned out to be greatly simplified, primarily because any modern or extinct language attested by writing system is a fairly perfect tool for conveying any conceptual categories. If things were different, then at the present time there would be peoples incapable of modern thinking, which is not the case. Consequently, the question is not in the presence of certain logical categories in the thinking of the speakers of a given language, but only in the use of certain means for their grammatical expression. So, the Russian language does not have grammatical means for expressing some verb categories that exist in the English language, for example, Past Perfect Continuous, but this does not lead to suggest it does not

express this logical category. Likewise, English does not have grammatical means for expressing Russian verb forms, but it can also convey this content descriptively.

In a number of specific cases, a connection between certain grammatical constructions in terms of their origin with various ancient stages in the history of thought is indeed possible. But the fact whether an ancient grammatical means has survived in a given language or has been replaced by a newer and more perfect one is already determined by the specific history of the language and in no way indicates the level of development of thinking among the speakers themselves.

For this reason, it is impossible to postulate a single scheme for the sequential change of the types of grammatical constructions that directly correspond to the alleged stages of the development of human thinking. Nevertheless, it should be noted that the hypothesis of a natural sequential change of syntactic systems, put forward by representatives of the “new doctrine of language”, was not just a groundless scheme; like any scientific hypothesis, it had its basis in the observed empirical facts, including facts from the history of the languages of the ancient East. The homogeneity of typological development, in particular the development from the verbal structure through the ergative to the nominative, can indeed be observed over large areas for a long time for whole groups of languages, with languages of different origins.

The principle of genealogical classification is based on the establishment the fact that the known phenomena of two or more different languages in some cases can be elevated to a common prototype, which is represented by the phenomenon of a common base language for them, or protolanguage. At the same time, in this case, we cannot and should not talk about the phenomena of the linguistic structure, since the latter have a functional significance, and therefore, can be developed in different languages independently due to similar category development. It is not the structural (typological or morphological) features of languages that are subject to comparison, but exclusively the sound material of the language – phonetic expression of similar concepts and grammatical indicators. For example, it is useless to compare Azerbaijani or other Turkish languages with Elamite or Sumerian on the grounds that all these languages are agglutinative: the material used (for example, the plural indices *-lar* in Azerbaijani, *-r* in Elamite, *-en* in Sumerian) are heterogeneous. Likewise, Georgian and Sumerian cannot be compared on the basis of the presence of an ergative case in both languages (*-man* in Georgian, *-e* in Sumerian). But we can compare, for example, Hittite with Greek (nominative indicators in Hittite, *-as*, in Greek *-os*, accusative – Hittite, *-an*, Greek *-on*); even more important is the presence of a whole system of naturally divergent, but raised to a common prototype, sounds expressing homogeneous lexical concepts, for example, in Hittite *harki-*, in Greek *arges* (in compound words *argi-*).

Since the sound designation of a concept or grammatical relation is nothing more than a conventional sign, not related to the concept itself or the grammatical relation in essence (compare different sounds of the word “house” in different languages – Greek *oikos*, Russian *dom*, English *house*, Arabic *baitun*, Sumerian *é*). It is clear that

the proximity of these conventional signs in two or more different languages (if we exclude accidental coincidences and borrowings) cannot be the result of a similar internal development. Such closeness of the linguistic material should only be the result of the common origin of these languages (material relationship).

In a similar way, in archeology, the genetic relationship of archaeological cultures is established. The shape of a vessel or tool can be determined by its function, and therefore can be developed independently, as a result of the same needs, in different and genetically unrelated societies. Functionally significant features of an object cannot serve as genealogical characteristics. On the contrary, the systematic closeness of ornamental and other secondary elements of compared objects, if the possibility of accidental coincidence or borrowing is excluded, is evidence of a genetic or other organic connection of the cultures that created these objects.

The validity of the reconstruction of a common language-basis for a number of languages, close and naturally diverging in the sound design of their vocabulary and grammatical fund, is historically confirmed by the well-known fact of the dialects of one language isolated from the other. Especially in conditions of a tribal social system, the quite common phenomenon of the disintegration of tribes is invariably accompanied by the fragmentation of dialects.

The development and spread of language families is a much more complex process. In particular, in history there are very few cases of complete physical change. Therefore, the spread of a language or a group of languages from an initial limited territory to a more extensive one does not mean the resettlement of the people. The perception of a new language usually occurs after a period of bilingualism; the old language of the population during this period influences the new one as a substrate – especially in the field of phonetics, syntax, and vocabulary.

Long-term coexistence of languages of different origins leads to the emergence of the phenomenon of “linguistic alliances”, which is expressed in the development of many common elements of vocabulary (areal vocabulary), similar techniques for expressing grammatical categories, etc. But the convergence of this kind is not of a genetic nature; it does not indicate the material relationship of languages.

## **§ 5. Problems of Kinship of the Languages of Ancient Western Asia**

As indicated above, only the presence of regular phonetic correspondences, manifested in the root word and morphological formants of the compared languages. These matches can either be so close that they are revealed even with superficial observation (in this case, you should certainly exclude accidental similarities, as well as words representing direct borrowings of one language from another, or both from a third). In the table below, the kinship of the Hurrian and Urartian languages, as well as the Akkadian, Hebrew and Aramaic languages, is immediately evident. The proximity of the roots is not accidental (as, for example, the proximity of the Elamite



-*hi* and the Aramaic -*eh*), since it spreads to many words of the main vocabulary and, most importantly, is systematic.

Table 1

	<i>Sumerian</i>	<i>Elamite</i>	<i>Khurrit</i>	<i>Uartian</i>	<i>Old Egyptian</i>	<i>Akkadian</i>	<i>Old Hebrew</i>	<i>Aramaic</i>
<i>four</i>	*lim-	unknown	tumni	unknown	fdw	arba	arba	arba
<i>Earth</i>	ki	hal	hawr	qəwrā	t'	ers-et	ars	ary-

The table shows that not only the closeness between the words of these languages is not accidental, but that the discrepancy is also subject to regularity. Thus, certain consonants, appearing in Akkadian as *s*, *š*, *z*, in Aramaic give *γ*, *t*, *d*; a long *ā* in Akkadian and Aramaic corresponds to a long *o* in Hebrew, a short *i* (or *e*) in the same two languages in a certain position corresponds to *ē* in Hebrew. Apparent deviations from these rules are partly explained by the surrounding phonetic conditions, that is, combinatorially, partly by the coincidence of initially different sounds.

Table 2

	<i>Akkadian</i>	<i>Old Hebrew</i>	<i>Aramaic</i>
<i>Earth</i>	'ers-et-	'ars-	'ar-<'ary'-
<i>tree</i>	'is-	'es-	'a-<*ay-
<i>go out</i>	ws'	js'<*ws'	j''<*wy'
<i>three</i>	šalāš-	šālōš-	tālāt-
<i>bull</i>	šūr-	šōr-	tōr-
<i>tooth</i>	šinn-	šinn-	šinn-

The proximity of Akkadian, Hebrew and Aramaic, on the one hand, and Hurrian and Uartian, on the other, is clearly visible. However, a comparative historical analysis sometimes makes it possible to establish a kinship where it is not detected by direct observation.

Akkadian, Hebrew, Aramaic and Arabic belong to the Semitic branch of the Semito-Hamitic family of languages; but the other languages of this family are known for the most part only in their present state. Therefore, the restoration of common Semito-Hamitic protoforms encounters so far almost insurmountable difficulties, and the material of the Ancient Egyptian turns out to be insufficient for this purpose.

Where a close and clear relationship of languages is not observed, one has to reckon with the statistical probability of random coincidences. Since the root morpheme in most languages contains from one to two, less often three, consonants, and one, less often two, vowels, and the total number of consonant phonemes in a language usually does not exceed two dozen, while the number of vowels is half a dozen, less often a dozen and not all of them can be combined, then it can be calculated that the number of roots in each language is of several thousand. Only the

regularity of phonetic correspondences, traced in a number of examples and confirmed by the connection of these words in meaning, can serve as a proof of the kinship of languages.

One should also take into account the important circumstance that with the development of languages can radically change the grammatical structure in each of the compared languages separately, which also complicates their comparison. In general, the similarity or dissimilarity of the grammatical structure, as already indicated above, cannot serve as reliable evidence of the presence or absence of kinship between two languages, since the structure could change in different ways in languages that have a common origin, and a completely analogous grammatical structure can be developed in genetically different languages.

## § 6. Ergative System and Autonomy of Words

The languages of Sumerian, Elamite, Hurrian and Urartian belonged to the type of agglutinative, which is characterized by the fact that each grammatical relation is expressed by a separate indicator and that the indicators are located one after another in a certain sequence; the root and stem of the word, as well as the indicators in principle (if we abstract from the combinatorial phonetic changes that arise only in a certain phonetic setting) are unchanged. Syntactically, all these languages are characterized by an ergative construction. Its essence lies in the absence of a grammatical category of a direct object.

In languages, any action can be grammatically considered either from the point of view of the subject of this action, or from the point of view of its object. These two points of view correspond to two Voices of transitive verbs – Active (real) and Passive. In the first case, the starting point and grammatical subject is the logical subject of the action (*A person lays down a stick* – the logical subject of the action is both a grammatical subject and is expressed by the nominative case as the subject case, the object of the action is expressed in a special object case – the accusative, the verb is consistent with the subject = logical subject); in the second case, the starting point and grammatical subject is the logical object of the action (*A stick is laid by a person* – the logical subject of the action is expressed in an indirect case).

In languages with ergative construction, where there is no category of grammatical direct object, voices cannot exist, since in the verb it turns out to be impossible to separately characterize the action from the point of view of its logical subject without taking into account the point of view of the logical object of the action. What we consider as an object of action, for ergative languages, is the subject of a state. Therefore, it is expressed by the case of the subject of the state (absolute), corresponding to our nominative, even when logically it is simultaneously the object of some action.

Indeed, the subject is expressed in ergative languages by the absolute case, just as in our languages the subject is expressed by the nominative case (*person lies*,

Summerian \**lú-iná*). But in the verbs of action (transitive), the absolute case is expressed not by the logical subject of the action, but by the logical subject of the state that occurs as a result of this action (*Man puts down a stick*, Summerian \**lú-e gidru ib-gar-e*). The logical subject of action is expressed in a special, so-called ergative case (\**lú-e*). In this respect, the ergative construction is similar to our Passive Voice. However, the essential difference lies in the concordance of the verb. In our Passive Voice, the logical object dominates: it is a grammatical subject, stands in the nominative case, and the verb form is consistent with it. In the ergative construction both subjects can be considered as subjects, and therefore the verb form can be consistent with both subjects, which cannot be in the construction of the Passive Voice.

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In most linguistic works it was already indicated why IE language family was chosen in preference to any other modern or ancient languages in order to study the proper character of word endings. The reasons for which the observation of finals and their variations is easier in IE than elsewhere have been succinctly enumerated: the absence of an accent of intensity and accent groups in the sentence, the existence of both nominal and verbal inflection rich and flexible enough to exclude the use of any kind of prepositions or postpositions, the strong unity of words.

But the main thing is that the words are autonomous. They are self-sufficient and they are equivalent to whole groups in other languages. A. Meillet gave an important place to this original feature of the IE phonetic system. Other languages have had or have at the present time a more or less rich inflexion system and rules of agreement similar to those represented by Vedic Sanskrit, ancient Greek, Latin, the Baltic and Slavic languages. In Semitic and Bantu the role of each word is marked to a large extent by its proper form, its prefixes and its endings; but they are not autonomous, their position is determined in a more or less rigorous way. It is even less important in languages such as Turkish, which do not repeat morphological cues; which unite the words in a definite way.

In common Semitic, one of the ancient languages that we can restore with the most certainty, the qualifying adjective agreed in gender, number and case with the substantive to which it was attached, in the same way as in IE. In Arabic, the adjectives which accompany a noun coincide in flexions. The two terms of a group such as *arraǧulu 'lkabir* “the great man”, in the nominative, are declined simultaneously, and we have in the genitive *arraǧuli' lkabiri*, in the accusative *arraǧula l'kabira*; to make the plural, the singular feminine collective *arriǧalu* takes the place of *arraǧulu* and *alkibaru* that of *alkabira*, but the two parallel inflections are exactly the same and the adjective is always regulated by the substantive. In the dual, where there is only one oblique form, common to the genitive and the accusative, we have *arraǧulani 'lkabirani* in the subject case, *arraǧulayni' lkabirayni* in the object case.

Arabic goes even further than IE; it distinguishes the indeterminate noun from

the determined, and on this point again accords the adjective with the substantive. In *arrajulu 'lkabiru* the word *'lkabiru* is in the determined form because *arrajulu* is determined; in *rajulin kabirin* the adjective is indeterminate as its noun.

## § 7. Ablaut Systems

The question of the *ablaut* in both types of linguistics – “East and West” – is toughly connected with its terminology. The core structure of ablaut splits into Germanic and Gothic types.

<i>Germanic type</i>			<i>Gothic type</i>		
a	ia	ua	a	e	o
i	ui	ai	i	ei	ai
u	iu	au	u	iu	au

Table 3

	<i>Present</i>	<i>Past Sng.</i>	<i>Past Pl.</i>	<i>Participle</i>
<b>I</b>	<i>i</i>	<i>a</i>	<i>u</i>	<i>u</i>
<b>II</b>	<i>i</i> <i>u</i>	<i>a</i> <i>a</i>	<i>e</i> <i>o</i>	<i>i(u)</i> <i>u</i>
<b>III</b>	<i>a</i>	<i>o</i>	<i>o</i>	<i>a</i>
<b>IV</b>	<i>ei</i>	<i>ai</i>	<i>i</i>	<i>i</i>
<b>V</b>	<i>iu</i>	<i>au</i>	<i>u</i>	<i>u</i>

If we stay aside from grammatical tenses, the nature of vowel changes remains vague; we have to follow in this case Sanskrit where we find the split of vowels in the stem onto *guna* and *vridhhi*:

<b>vowel stem</b>	a	i	u
<b>guna</b>		ai	au
<b>vridhhi</b>	ā	āi	āu

Vowels *i* and *u* in *guna* are modified into *ê* and *ô* (*ai* and *au* respectively), and in *vridhhi* *âi* and *âu*. Mechanical explanation of this gave Mr Bopp by division of all flexions into “heavy” and “light”. Bopp's gravitational law says that the heaviness of a flexion depends on its length, e.g. *mī*, *sī*, *tī* are shorter in one letter than *vas*, *tas*, *mas*. But sometimes “light” flexions may be longer than “heavy”. So, *âni* in *bibharâni* is lighter than *hi* in *bibhrhi* due to evolutionary changes coming back to more ancient form. Moreover, *guna* appears not only within conjugation but everywhere with *a*-umlaut. Vowels *i* and *u* of stressed, non-geminated closed syllables of a stem change under the influence of *a* into *ai* and *au*; they are fixed as *ê*

and *ô*.

Mr Holtzmann pointed on the accent influence by the ablaut formation in *guna* position. Sanskrit grammar, as well as the Greek one, distinguishes between three accents – acute, gravis, and circumflex. Mr Holtzmann compared preterit of those verbs which belonged to the 12<sup>th</sup> strong conjugation by Mr Grimm:

<b>Gothic</b>	<b>Sanskrit</b>
band	babándha
banst	babándhitha
band	babándha
bundu	babandhivá
bunduts	babandháthus
bundum	babandhimá
bunduth	babandhá
bundun	babandhús

He found that the stressed *a* in Sanskrit did not change in Gothic, and unstressed *a* changed into *u*, although not always. The change *band/bund* is rather old because it appears even if the final vowel of a stem did not fall out yet, i.e. remained under accent influence. For example, from *babandhimá* it may follow *babundimá*, *bundima*, and then by reverse accent *búnduma*, *búndum*.

Mr Holtzmann described *ablaut* similar to that of Mr Rumpelt:

I 1)	i	a	u	u
2)	i	a	ê	u
3)	i	a	ê	i
II	ei	ai	i	i
III	iu	au	u	u
IV	a	ô	ô	a

*Explanation:* In I, Got. *a* = Skr. *á*; *i/u* = *à*; *ê* = *ê*. In II, Got. *i* = Skr. *i*; *ai* = *é*; *ei* = *è*. In III, Got. *u* = Skr. *u*; *au* = *ó*; *iu* = *ò*. In IV, Got. *ô* = Skr. *ā́*; *a* = *ā*.

Table 4

	Sanskrit				Gothic		
	Light vowels	Long vowels	Guna vowels	Vriddhi vowels	Light vowels	Long vowels	Guna vowels
1. i-stem	<i>i</i>	<i>î</i>	<i>e</i>	<i>ai</i>	<i>i</i>	<i>ei(î)</i>	<i>ai</i>
2. a-stem	<i>(r)</i>	<i>(r)</i>	<i>(ar)a</i>	<i>(ar)a</i>	<i>i(a)</i>	<i>â</i>	<i>e, o</i>
3. u-stem	<i>u</i>	<i>ô</i>	<i>o</i>	<i>au</i>	<i>u</i>	<i>iu(=üû)</i>	<i>au</i>

With Mr Jacobi agreed Mr Benfey and Mr Grein that *guna* is a result of accent influence. Later Mr Schleicher followed the viewpoints of Mr Grimm and Mr Bopp because *i* and *u* came out from *a* in PIE so that all three protovowels could have changed both in *guna* and in *vridhhi*:

Table 5

	Vowel stem	1 <sup>st</sup> grade	2 <sup>nd</sup> grade
1. a-stem	<i>a</i>	$a+a=aa$	$a+a=\bar{a}a$
2. i-stem	<i>i</i>	$a+i=ai$	$a+ai=\bar{a}i$
3. u-stem	<i>u</i>	$a+u=au$	$a+au=\bar{a}u$

The first and the second grades of *a*-stem coincided initially with *i*-stem. The second grade lacked in ancient times. Weakness and prolongation Mr Schleicher described as a negative process, alien to the protolanguage. His theory can be assumed in the following table.

Table 6

Old Indian				
	Weakness	Stem vowel	1 <sup>st</sup> grade	2 <sup>nd</sup> grade
1. a-stem	<i>i, u, ī, ū</i>	<i>a</i>	$\bar{a}$	$\bar{a}$
2. i-stem	—	<i>i</i>	$\bar{e}$	$\bar{a}i$
3. u-stem	—	<i>u</i>	$\bar{o}$	$\bar{a}u$
Avestian				
1. a-stem	<i>i</i>	<i>a (e, o)</i>	$\bar{a}$	$\bar{a}$
2. i-stem	—	<i>i</i>	$\bar{a}e$	$\bar{a}i$
3. u-stem	—	—	<i>ao</i>	$\bar{a}u$
Greek				
1. a-stem	<i>ι, υ</i>	<i>ε, ο, α</i>	<i>ο, ᾱ, η</i>	<i>ω</i>
2. i-stem	—	<i>ι</i>	<i>ει(αι)</i>	<i>οι</i>
3. u-stem	—	<i>υ</i>	<i>ευ(αυ)</i>	<i>ου(αυ)</i>
Latin				
1. a-stem	<i>i, u</i>	<i>e, o, a</i>	<i>o, ē, a</i>	$\bar{o}$
2. i-stem	—	<i>i</i>	<i>ei, ī, e, ai, ae</i>	<i>oi, oe, ū</i>
3. u-stem	—	<i>u</i>	<i>eu, au, ō</i>	<i>ou, ū</i>
Gothic				
1. a-stem	<i>i/u</i>	<i>a</i>	<i>a, ē</i>	$\bar{o}$
2. i-stem	—	<i>i</i>	<i>ei</i>	<i>ai</i>
3. u-stem	—	<i>u</i>	<i>iu (ū)</i>	<i>au</i>

Mr Curtius showed that the splitting of the sound *a* was essential for IE languages, because *e* and *o* followed from it and only then *i* and *u*. The same position took Mr Scherer. Mr Müller but rejected this theory and tried to explain three statements: 1) the reinforcement of vowels in PIE appeared merely by *i* and *u*; 2) it was restricted with stem vowel; 3) it was simple (first grade of reinforcement). The whole table of *ablaut* ranges in Germanic dialects by Mr Peterson looks as follows:

Table 7

	a-stem					i-stem				u-stem			
Old Germ.	<i>a</i>	<i>â</i>	<i>e(i)</i>	<i>o</i>	<i>ô</i>	<i>i</i>	<i>î</i>	<i>ai</i>	<i>î</i>	<i>u</i>	<i>û</i>	<i>au</i>	<i>eu</i>
Gothic	<i>a</i>	<i>(ê)â</i>	<i>i</i>	<i>u</i>	<i>ô</i>	<i>i</i>	<i>ei</i>	<i>ai</i>	<i>ei</i>	<i>u</i>	<i>û</i>	<i>au</i>	<i>iu</i>
Old Scand.	<i>a</i>	<i>â</i>	<i>e(i)</i>	<i>o(u)</i>	<i>ô</i>	<i>i</i>	<i>î</i>	<i>ei</i>	<i>î</i>	<i>u</i>	<i>û</i>	<i>au</i>	<i>jú(iú)</i> <i>jó(ió)</i>
Anglo-Sax.	<i>(a)ă</i> <i>(o)</i>	<i>ae(â)</i>	<i>e(i)</i>	<i>o(u)</i>	<i>ô</i>	<i>i</i>	<i>î</i>	<i>â</i>	<i>î</i>	<i>u</i>	<i>û</i>	<i>eá, ê</i>	<i>eó</i>
Old Fris.	<i>a</i>	<i>â</i>	<i>e(i)</i>	<i>o(u)</i>	<i>ô</i>	<i>i</i>	<i>î</i>	<i>ê</i>	<i>î</i>	<i>u</i>	<i>û</i>	<i>ê(â)</i>	<i>io,</i> <i>iu(ia)</i>
Old Sax.	<i>a</i>	<i>â(ê)</i>	<i>e(i)</i>	<i>o(u)</i>	<i>ô</i>	<i>i</i>	<i>î</i>	<i>ê</i>	<i>î</i>	<i>u</i>	<i>û</i>	<i>ô</i>	<i>eo,</i> <i>io, iu</i>
OHG	<i>a</i>	<i>â</i>	<i>e(i)</i>	<i>o(u)</i>	<i>uo</i>	<i>i</i>	<i>î</i>	<i>ei</i>	<i>î</i>	<i>u</i>	<i>uo</i>	<i>ou(au,</i> <i>ô)</i>	<i>eo,</i> <i>io, iu</i>

## § 8. Development of Writing Systems

The development of phraseographic writing corresponded to the archaeological Neolithic era. The most important source of the formation of this system, especially its main, pictographic variety, was the primitive art. In late epochs, pictographic writing and the most ancient conventional signs (both isolated and combined into calendars or fortune-telling systems) arose among peoples who were at higher levels of development of productive forces, but also experienced tribal influence; examples are runic signs of Germanic tribes.

Phraseographic writing did not require literacy training and was available to all representatives of the tribe. This was consistent with the pre-class nature of the tribal communities that used pictography. However, this writing was very imperfect. With the help of it, it was possible to make only the simplest notes, which often allowed different interpretations. Therefore, with the further development of society, thinking and language, the pictographic images were more and more dismembered into separate pictorial signs, which were stabilized both in meaning and in form. Gradually, almost every such sign began to convey a separate word (more precisely, a

separate semantic unit of speech), and pictography was transformed into a perfect and complex logographic system.

Logographic writing compared to phraseographic writing more accurately reflected the language. It conveyed not only the content of speech, but also its division into words, as well as the syntactic sequence of words. In addition, logograms reflected the vocabulary of the language, which, although very large, is still limited; therefore these signs are more stable and form writing systems. As for the form of the logogram, it sometimes retained its pictorial character for a long time (for example, in Egyptian hieroglyphics), and sometimes lost it, turning partially (Chinese characters) or completely (Asian cuneiform) into conventional signs. In its developed form, logography ensures the transmission of complex works.

Due to the greater capacity and international character of semantic logograms, they are widely used in modern sciences; so, genetical logograms (terminograms) are mathematical, chemical and other scientific signs. However, unlike the signs of the most ancient logographic systems, these signs are 1) artificially created; 2) emerging as graphic designations of scientific terms. Along with its merits, historical logography had major drawbacks. The most important of them are 1) the difficulty of conveying words of general and abstract meaning, as well as proper names, especially foreign ones, using the initial logograms; 2) the multisignature of logographic systems due to the fact that a logogram usually denotes a word, and the number of words is measured in many thousands; 3) the impossibility of transmitting grammatical forms of words using logograms; 4) weak connection with the development of the language.

With the further development of society, as the circle of people using writing expanded, logographic systems that are difficult to learn and use, were transformed into logographic-syllabic (Western Asia, Crete, Maya) or logographic-consonant systems (Egypt). This process was especially accelerated when logographic systems were used by peoples whose languages were distinguished by a variety of grammatical forms. As a result, the sequential logographic or, more precisely, the morphemo-logographic character was retained only by the Chinese writing, which reached the greatest perfection along this line of development and, moreover, turned out to be convenient for China due to the peculiarities of the Chinese language.

Syllabic writing appeared on the general historical level later than the logographic one, in its relatively pure form, that is, almost free from logograms – from the middle of the 2nd millennium BC. This was due to the fact that this writing presupposed a more developed ability to analyze speech, to decompose it into more fractional elements – syllables. But the transmission of adjacent and final consonants was a significant difficulty for most syllabic systems. This led to the consolidation of syllabic writing in only a few peoples whose languages corresponded to this type of writing.

Alphanumeric writing in general historical terms appeared later than syllabic; in its pure form, consonant-sound writing was formed at the end of the 2<sup>nd</sup> millennium BC (among the Western Semites), and vocalized-sound – at the beginning of the 1<sup>st</sup>



millennium BC (among the Greeks). The biggest advantage of alphanumeric writing is that it allows us to get by with the minimum number of characters – usually two to three dozen, and this greatly facilitates the learning and use of writing. Therefore, the first successive letter-sound systems arose among the most advanced trading peoples of antiquity (Phoenicians, Canaanites, etc.).

The first alpha-sound systems were (for linguistic reasons) consonant. Vocalized-sound writing, in comparison with consonant-sound writing, required a slightly larger number of signs, but it provided an even more accurate rendering of the language. The spread of alphanumeric writing took place at a rapid pace and almost exclusively through borrowings. This was due to the simplicity and convenience of alphanumeric writing (especially vocalized sound), its suitability (as opposed to logographic and syllabic) for any languages. However, the large role of borrowings at this stage in the development of writing led in many cases to a discrepancy between the alphabetic-letter composition of the borrowed letters and the phonetic (phonemic) composition of the language. Under conservative writing policies, the gap between writing and language was exacerbated by the persistence of outdated spelling.

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